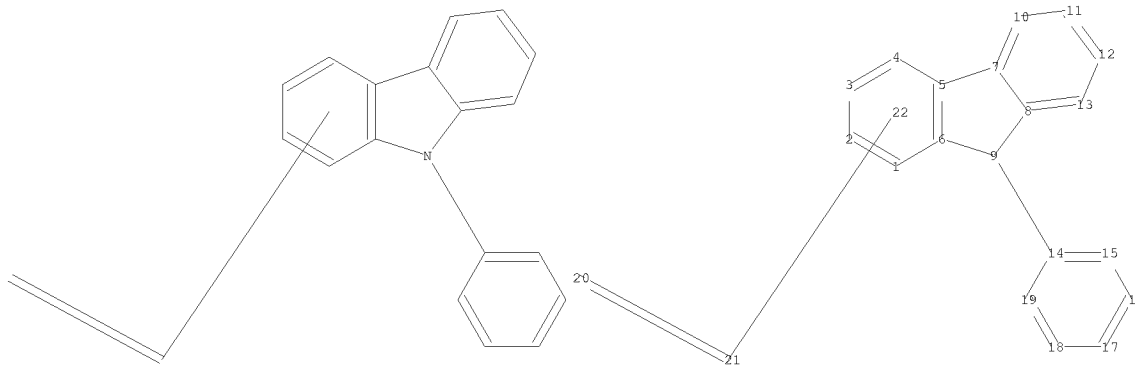


=>



chain nodes :

20 21

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

chain bonds :

9-14 20-21

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19

exact/norm bonds :

5-7 6-9 8-9 9-14

exact bonds :

20-21

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom
15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:Atom

L6 STRUCTURE UPLOADED

=> s l6 sss sam

SAMPLE SEARCH INITIATED 10:24:20 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 532 TO ITERATE

100.0% PROCESSED 532 ITERATIONS

15 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 9257 TO 12023

PROJECTED ANSWERS: 68 TO 532

L7 15 SEA SSS SAM L6

=> s l6 sss full

FULL SEARCH INITIATED 10:24:24 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 10233 TO ITERATE

100.0% PROCESSED 10233 ITERATIONS
SEARCH TIME: 00.00.01

314 ANSWERS

L8 314 SEA SSS FUL L6

=> s l8

L9 246 L8

=> s l9 and py<=2002

22908422 PY<=2002

L10 168 L9 AND PY<=2002

=> s l10 and polymer

1165669 POLYMER

931000 POLYMERS

1559731 POLYMER

(POLYMER OR POLYMERS)

L11 15 L10 AND POLYMER

=> s l10 and electroluminescent

67697 ELECTROLUMINESCENT

6 ELECTROLUMINESCENTS

67699 ELECTROLUMINESCENT

(ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)

L12 16 L10 AND ELECTROLUMINESCENT

=> s l10 and hole transport

235775 HOLE

139592 HOLES

316522 HOLE

(HOLE OR HOLES)

763088 TRANSPORT

6508 TRANSPORTS

765718 TRANSPORT

(TRANSPORT OR TRANSPORTS)

5688 HOLE TRANSPORT

(HOLE(W) TRANSPORT)

L13 3 L10 AND HOLE TRANSPORT

=> d l13 1-3 ibib abs hitstr

L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Styryl-containing polymer, its manufacture, and organic electroluminescent device, electrophotographic photoreceptor, and hole-transporting material using it

Author/Inventor

Ueda, Hideaki; Kitahara, Takeshi; Nozaki, Takeshi

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan; Konica Minolta Holdings, Inc.

Source

Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310606	A	19981124	JP 1997-119194	19970509

Patent Number (1)

JP 10310606

Kind Code (1)

A

Patent Publication Date (1)

19981124

Application Number (1)

JP 1997-119194

Application Date (1)

19970509

Priority Patent Number (1)

JP 1997-119192

Priority Kind Code (1)

A

Priority Patent Publication Date (1)
19970509

Abstract

The styryl-containing polymer is represented by $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CH:CHAr}_2)]_n$ (Ar_1 = arylene; Ar_2 = aryl, condensed polycyclic group, heterocyclic group; Ar_1 and Ar_2 may be substituted; n = natural number). The above polymer is manufactured by (1) the reaction between a P compound $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CH}_2\text{X})]_n$ and an aldehyde compound Ar_2CHO or (2) the reaction between an aldehyde compound $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CHO})]_n$ and a P compound $\text{Ar}_2\text{CH}_2\text{X}$ [$\text{X} = \text{PO}(\text{OR}_1)_2$ or $\text{PR}_2\text{S.Y}$; R_1 = lower alkyl; R_2 = cycloalkyl, aryl; $\text{Y} = \text{halo}$]. The electroluminescent device contains the polymer in ≥ 1 organic compound thin layer including a light-emitting layer and the photoreceptor contains the polymer as a charge-transporting material. The hole-transporting material composed of the polymer is also claimed. The styryl-containing polymer shows good performance in charge-transporting and optical conductivity even after repeated use.

L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrophotographic photoreceptor using dinaphthoquinone derivative electron-transporting agent

Author/Inventor

Fukami, Toshuki; Katsukawa, Masahito

Patent Assignee/Corporate Source

Mita Industrial Co Ltd, Japan

Source

Jpn. Kokai Tokkyo Koho, 18 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05341545	A	19931224	JP 1992-147691	19920608

Patent Number (1)

JP 05341545

Kind Code (1)

A

Patent Publication Date (1)

19931224

Application Number (1)

JP 1992-147691

Application Date (1)

19920608

Priority Patent Number (1)

JP 1992-147691

Priority Patent Publication Date (1)

19920608

Abstract

The photoreceptor comprises a conductive substrate coated with a photosensitive layer containing a dinaphthoquinone derivative I ($\text{R}_1\text{-6} = \text{H}$, alkyl, aryl, alkoxy, aralkyl) as an electron-transporting agent. The photosensitive layer may contain a diamine compound II ($\text{R}_7\text{-12} = \text{alkyl}$, alkoxy, halo, aryl, nitro, cyano, alkylamino; $e, f = 0\text{-}3$; $a, b, c, d = 0\text{-}2$) as a hole-transporting agent. The photoreceptor shows high photoresponse and good cyclic ability.

L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrophotographic photoreceptor using naphthoquinone derivative electron-transporting agent

Author/Inventor

Fukami, Toshuki; Tanaka, Masafumi

Patent Assignee/Corporate Source

Mita Industrial Co Ltd, Japan

Source

Jpn. Kokai Tokkyo Koho, 18 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05341544	A	19931224	JP 1992-147690	19920608

Patent Number (1)

JP 05341544

Kind Code (1)

A

Patent Publication Date (1)

19931224
Application Number (1)
JP 1992-147690
Application Date (1)
19920608
Priority Patent Number (1)
JP 1992-147690
Priority Patent Publication Date (1)
19920608

Abstract

The photoreceptor comprises a conductive substrate coated with a photosensitive layer containing a naphthoquinone derivative I (R1-4 = H, alkyl, aryl, alkoxy, aralkyl) as an electron-transporting agent. The photosensitive layer may contain a diamine compound II (R6-10 = alkyl, alkoxy, halo, aryl, nitro, cyano, alkylamino; e, f = 0-3; a, b, c, d = 0-2) as a hole-transporting agent. The photoreceptor shows high photoresponse and good cyclic stability.

=> d l11 1-15 ibib abs hitstr

L11 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Organic luminescent material and device

Author/Inventor

Taguchi, Toshiki

Patent Assignee/Corporate Source

Fuji Photo Film Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 19 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002105445	A	20020410	JP 2000-300716	20000929

Patent Number (1)

JP 2002105445

Kind Code (1)

A

Patent Publication Date (1)

20020410

Application Number (1)

JP 2000-300716

Application Date (1)

20000929

Priority Patent Number (1)

JP 2000-300716

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

20000929

Abstract

The invention refers to an organic luminescent material I [R1 = H or methyl; R2-3 = H or substituents which may be joined to form a ring; R4 = H, (un)substituted alkyl, alkenyl, alkynyl, aryl, heterocyclyl, alkylcarbonyl, arylcarbonyl, alkylsulfonyl, arylsulfonyl, alkoxy carbonyl, aryloxy carbonyl, carbamoyl or sulfamoyl; Z = moiety comprising an aromatic ring; A = copolymerizable monomer unit; k = 1 - 100; n = 0 - 9; k + n = 100].

L11 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

The cation radical chain cycloaddition polymerization of N,3-bis(trans-1-propenyl)carbazole: The critical importance of intramolecular hole transfer in cation radical cycloaddition polymerization

Author/Inventor

Roh, Yeonsuk; Gao, Daxin; Bauld, Nathan L.

Patent Assignee/Corporate Source

Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX, 78712, USA

Source

Advanced Synthesis & Catalysis (2001), 343(5), 481-489 CODEN: ASCAF7; ISSN: 1615-4150

Document Type

Journal

Language

English

Abstract

The synthesis and polymerization of N,3-[bis(trans-1-propenyl)]carbazole (1) is reported. Using either the stable cation radical salt

tris(4-bromophenyl)aminium hexachloroantimonate (2+-) or anodic oxidation to initiate the reaction, novel cycloaddn. polymers are obtained in which the intermonomer linkages are of the cyclobutane, and to some extent of the Diels-Alder, type. A novel cation radical chain mechanism is proposed for the reaction, and extensive support for this mechanism is presented. The greatly enhanced reactivity of difunctional, as opposed to monofunctional, substrates in cation radical cycloaddns. is dramatically highlighted by a comparison of the cycloaddn. reactivity (rapid polymerization) of 1 vs. N-propenylcarbazole (inefficient cyclodimerization) under electrochem. oxidation conditions. The sharply enhanced reactivity of 1 is attributed to the availability of intramol. hole transfer in the bifunctional but not the monofunctional case.

L11 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

An unprecedented cation radical chain Diels-Alder polymerization leading to novel carbazole polymers

Author/Inventor

Bauld, N. L.; Roh, Y.

Patent Assignee/Corporate Source

Department of Chemistry and Biochemistry, The University of Texas, Austin, TX, 78712, USA

Source

Tetrahedron Letters (2001), 42(8), 1437-1439 CODEN: TELEAY; ISSN: 0040-4039

Document Type

Journal

Language

English

Abstract

The polymerization of 3,6-bis(trans-1'-propenyl)-N-phenylcarbazole in the presence of tris(4-bromophenyl)aminium hexachloroantimonate leads to soluble, high mol. weight, thermally stable cycloaddn. polymers containing carbazole units in the main polymer chain. The reaction appears to proceed via a highly efficient cation radical chain mechanism which circumvents the usual hole transfer step of the propagation cycle. This polymerization represents the first observation of direct cation radical Diels-Alder cycloaddn. polymerization

L11 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

N-Phenylvinylcarbazole compounds as radical polymerization monomers for polymers and their manufacture

Author/Inventor

Nakaya, Tadao; Yamauchi, Takao

Patent Assignee/Corporate Source

Taiho Kogyo Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000256319	A	20000919	JP 1999-65200	19990311

Patent Number (1)

JP 2000256319

Kind Code (1)

A

Patent Publication Date (1)

20000919

Application Number (1)

JP 1999-65200

Application Date (1)

19990311

Priority Patent Number (1)

JP 1999-65200

Priority Patent Publication Date (1)

19990311

Abstract

Carbazole compds. which bear a vinyl group on the 4 position and a substituted Ph group on the 1 position are prepared by alkylating carbazole (I) with a substituted Ph iodide compound, then formylating the alkylated I with a Vilmeier reagent and converting the formylated compound to a vinyl compound

L11 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Styryl-containing polymer , its manufacture, and organic electroluminescent device, electrophotographic photoreceptor, and hole-transporting material using it

Author/Inventor

Ueda, Hideaki; Kitahora, Takeshi; Nozaki, Takeshi

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan; Konica Minolta Holdings, Inc.

Source

Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310606	A	19981124	JP 1997-119194	19970509

Patent Number (1)

JP 10310606

Kind Code (1)

A

Patent Publication Date (1)

19981124

Application Number (1)

JP 1997-119194

Application Date (1)

19970509

Priority Patent Number (1)

JP 1997-119192

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19970509

Abstract

The styryl-containing polymer is represented by $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CH}:\text{CHAr}_2)]_n$ (Ar_1 = arylene; Ar_2 = aryl, condensed polycyclic group, heterocyclic group; Ar_1 and Ar_2 may be substituted; n = natural number). The above polymer is manufactured by (1) the reaction between a P compound $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CH}_2\text{X})]_n$ and an aldehyde compound Ar_2CHO or (2) the reaction between an aldehyde compound $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CHO})]_n$ and a P compound $\text{Ar}_2\text{CH}_2\text{X}$ [$\text{X} = \text{PO}(\text{OR}_1)_2$ or PR_2S ; R_1 = lower alkyl; R_2 = cycloalkyl, aryl; $\text{Y} = \text{halo}$]. The electroluminescent device contains the polymer in ≥ 1 organic compound thin layer including a light-emitting layer and the photoreceptor contains the polymer as a charge-transporting material. The hole-transporting material composed of the polymer is also claimed. The styryl-containing polymer shows good performance in charge-transporting and optical conductivity even after repeated use.

L11 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Carbazole derivative for charge transport material of electrophotographic photoreceptor

Author/Inventor

Kobayashi, Toru; Matsushima, Yoshimasa; Sugiyama, Hiroshi; Hagiwara, Toshimitsu

Patent Assignee/Corporate Source

Takasago Perfumery Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 27 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09295969	A	19971118	JP 1996-130556	19960430

Patent Number (1)

JP 09295969

Kind Code (1)

A

Patent Publication Date (1)

19971118

Application Number (1)

JP 1996-130556

Application Date (1)

19960430

Priority Patent Number (1)

JP 1996-130556

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19960430

Abstract

The charge transport material for the electrophotog. photoreceptor contains I. (Ar_1 -2 = aryl; R_1 -2 = lower alkyl, aryl; R_3 = lower alkyl, C5-7 aliphatic cyclic alkyl, aryl, aralkyl; $m, n = 0-1$). The charge transport material shows good solubility in polymer binder and

provides good charge transportability.

L11 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Organic photorefractive materials, manufacture thereof and memory devices

Author/Inventor

Yokoyama, Kenji; Arishima, Koichi; Shimada, Toshuki; Sukegawa, Takeshi

Patent Assignee/Corporate Source

Nippon Telegraph & Telephone, Japan

Source

Jpn. Kokai Tokkyo Koho, 27 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07110499	A	19950425	JP 1993-344598	19931220

Patent Number (1)

JP 07110499

Kind Code (1)

A

Patent Publication Date (1)

19950425

Application Number (1)

JP 1993-344598

Application Date (1)

19931220

Priority Patent Number (1)

JP 1993-344598

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19931220

Abstract

The materials, suitable for use in write-in memories, comprise: a carrier-generating and a nonlinear optical substance; and a transparent polymer dispersant.

L11 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrophotographic photoreceptors

Author/Inventor

Watanabe, Kazumasa; Kinoshita, Akira; Hirose, Hisahiro; Itami, Akihiko

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 24 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03035246	A	19910215	JP 1989-170358	19890630

Patent Number (1)

JP 03035246

Kind Code (1)

A

Patent Publication Date (1)

19910215

Application Number (1)

JP 1989-170358

Application Date (1)

19890630

Priority Patent Number (1)

JP 1989-170358

Priority Patent Publication Date (1)

19890630

Abstract

An electrophotog. photoreceptor suited for use in laser printers comprises a crystalline titanyl phthalocyanine (charge generator)

exhibiting CuK α x-ray diffraction main peaks at $2\theta = 9.6$ and $27.2 \pm 2^\circ$ with the former intensity $\geq 40\%$ of the latter and ≥ 1 charge transporter selected from AHC:NNR1R2 (A = aryl, heterocyclic, vinyl; R1,2 = alkyl, Ph, naphthyl; R1, R2 may form a ring), Ar1Ar2NAr3CR11:CR12R13 (Ar1,2 = alkyl, aryl; Ar1, Ar2 may form a ring; Ar3 = phenylene; R11 = H, alkyl, phenyl; R12,13 = alkyl, aryl; R12, R13 may form a ring), Ar11Ar12C(:CHCH:)nCAr13Ar14 [n = 0, 1; Ar11-14 = Ph, naphthyl; ≤ 1 of Ar11-14 contains amino-substituted groups(s)], I (n = 0, 1; Ar21,22 = alkyl, aryl; Ar21, Ar22 may form a ring; R21 = H, alkyl, aryl; R22 = H, alkyl, alkoxy, halo), Ar31Ar32NAr33B (Ar31,32 = phenylene, naphthyl; Ar33 = phenylene; B = benzyl, phenetyl), and a polymer with R1SiR2 repeating unit (R1,2 = alkyl, aryl, alkylsilyl, arylsilyl). The photoreceptor has an extended photosensitive region including long wavelengths of semiconductor lasers.

L11 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrostatographic imaging method

Author/Inventor

Takizawa, Yoshio; Takahashi, Jiro; Matsubara, Akitoshi

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01246559	A	19891002	JP 1988-77465	19880329

Patent Number (1)

JP 01246559

Kind Code (1)

A

Patent Publication Date (1)

19891002

Application Number (1)

JP 1988-77465

Application Date (1)

19880329

Priority Patent Number (1)

JP 1988-77465

Priority Patent Publication Date (1)

19880329

Abstract

The title imaging method employs (1) a toner containing a styrene homopolymer and/or a styrene-vinyl compound copolymer and an oxidation inhibitor, and (2) a photoreceptor based on an organic photoconductive semiconductor.

L11 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Photosensitive materials for electrophotography

Author/Inventor

Kawakami, Sota; Takimoto, Masataka; Sawada, Kiyoshi

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61235847	A	19861021	JP 1985-76294	19850410

Patent Number (1)

JP 61235847

Kind Code (1)

A

Patent Publication Date (1)

19861021

Application Number (1)

JP 1985-76294

Application Date (1)

19850410

Priority Patent Number (1)

JP 1985-76294

Priority Patent Publication Date (1)

19850410

Abstract

Elec. conductive substrates are coated with a lining layer consisting of an alc.-insol. poly(vinyl formal) resin, and then with a photosensitive layer to give the title materials. The materials show good substrate-photosensitive layer adhesion and good performance with respect to sensitivity, dark-decay, charging, and durability on repeated use; hence the materials are useful for electrophotog. Thus, an Al plate was coated successively with (1) a lining layer of Vinylec L [poly(vinyl formal) resin], (2) a charge-generating layer composed of I and Panlite L-1250 (polycarbonate resin), and (3) a charge-transport layer composed of II and Panlite K-1300 (polycarbonate resin) to obtain a photosensitive material, which gave a surface potential of -900 V, a dark-decay rate of 21.8%, and a half-decay exposure sensitivity of 5.5 lx-s by a 40- μ A corona charging followed by a 5-s dark period and subsequent visible exposure.

L11 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Photoreceptors

Author/Inventor

Takei, Yoshiaki; Fujimaki, Yoshihide; Nomori, Hiroyuki

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60143349	A	19850729	JP 1983-249503	19831229

Patent Number (1)

JP 60143349

Kind Code (1)

A

Patent Publication Date (1)

19850729

Application Number (1)

JP 1983-249503

Application Date (1)

19831229

Priority Patent Number (1)

JP 1983-249503

Priority Patent Publication Date (1)

19831229

Abstract

Electrophotog. photoreceptors have a photosensitive layer comprising a charge carrier-generating layer and a charge carrier-transporting layer containing a carbazole derivative (I; R = aryl which may be substituted; R1 = H, halo, alkyl which may be substituted, alkoxy, NH2, substituted amino, OH; R2 = aryl which may be substituted, heterocyclyl which may be substituted) and a polymeric organic semiconductor having condensed aromatic or heterocyclic rings on its side chains. The photoreceptors exhibit improved sensitivity and UV-light stability. Thus, an Al-coated poly(ethylene terephthalate) support was 1st coated with maleic anhydride-vinyl acetate-vinyl chloride copolymer (S-Lec MF-10), then coated with 4,10-dibromoanthroanthrolone (Monolite Red 2Y; C.I. 59300) by vapor deposition, finally coated with a solution containing poly(N-vinylcarbazole) (Luviran M-170), I [R, R2 = p-MeOC6H4; R1 = H), and a polycarbonate resin (Panlite L-1250), and dried to give an electrophotog. photoreceptor showing high sensitivity and UV lightfastness.

L11 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Composite electrophotographic photosensitive materials

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 14 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58002849	A	19830108	JP 1981-104579	19810629

Patent Number (1)

JP 58002849
Kind Code (1)
A
Patent Publication Date (1)
19830108
Application Number (1)
JP 1981-104579
Application Date (1)
19810629
Priority Patent Number (1)
JP 1981-104579
Priority Patent Publication Date (1)
19810629

Abstract

Charge carrier-transfer layers of composite electrophotog. plates contain an amine of the formula RNR_1R_2 (R, R_1, R_2 = aromatic or heterocyclic moiety), a carbazole derivative of the formula I (R_3, R_4 = H, halo, alkyl, alkoxy, aryl, aryloxy, amino, OH; R_5, R_6 = alkyl, aryl; Z = arylene, O- or S-containing heterocyclic moiety), and an organic polymer type photoconductor having condensed aromatic or heterocyclic ring(s) on side chain. Optionally, an electron acceptor type compound is added to the charge carrier-transfer layer and/or charge carrier-generating layer. Thus, an Al-laminated poly(ethylene terephthalate) film support was coated with S-Lec MF-10 (a maleic anhydride-vinyl acetate-vinyl chloride copolymer), then coated with 4,10-dibromoanthanthrone to form a charge carrier-generating layer, and coated with a composition containing poly(N-vinylcarbazole), 4,4'-dimethyltriphenylamine, I (R_3, R_4 = H; R_5, R_6 = p-methoxyphenyl; Z = p-phenylene), and Panlite L-1250 (a polycarbonate resin) to give a composite electrophotog. plate having very stable electrophotog. characteristics.

L11 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrophotographic recording material

Author/Inventor

Takahashi, Jiro; Komamura, Tawara; Sawada, Kiyoshi; Sasaki, Osamu; Goto, Satoshi; Kinoshita, Akira

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd. , Japan

Source

Ger. Offen., 37 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3248374	A1	19830714	DE 1982-3248374	19821228

Patent Number (1)

DE 3248374

Kind Code (1)

A1

Patent Publication Date (1)

19830714

Application Number (1)

DE 1982-3248374

Application Date (1)

19821228

Priority Patent Number (1)

JP 1981-213834

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19811228

Abstract

An electrophotog. recording material with a greater ability for the production of charge carriers, a higher sensitivity, and a lower rest potential consists of an elec. conductive support, a photosensitive layer containing a bisazo compound of the formula I or II (R = Br, Cl, CN; R_1 = halogen, alkyl, alkoxy, CN; R_2 = H, halogen, alkyl, alkoxy; R_3 = carbamoyl, sulfamoyl; R_4 = H, amino, carbamoyl, carboxy, ester group; R_5 = aryl; Z = the necessary atoms to form an aromatic or heteroarom. ring), and a further layer. Thus, an Al-laminated polyester film was coated with a vinyl acetate-vinyl chloride-maleic anhydride copolymer 0.05 μm thick interlayer, a 0.5 μm charge forming layer from a dispersion containing III 2 and 1,2-dichloroethane 140 weight parts, and a 12 μm charge transporting layer from a mixture containing N,N-diethylaminobenzaldehyde N,N-diphenylhydrazone 6, a com. polycarbonate 10, and 1,2-dichloroethane 90 weight parts. The resultant plate was charged to a surface potential of ≥ 500 V and the amount of light required to decrease the surface potential to 250 V and 50 V at 15°, 25°, 35° were 2.7, 2.5, and 2.4 and 5.7, 5.9, and 5.3 xl-s, resp. The required exposure to produce a rest potential of O at all these temps. was 30 lx-s.

L11 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Light-sensitive electrophotographic element

Author/Inventor

Goto, Satoshi; Kinoshita, Akira; Takei, Yoshiaki; Fujimaki, Yoshihide

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd. , Japan

Source

Ger. Offen., 42 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3208337	A1	19820923	DE 1982-3208337	19820309

Patent Number (1)

DE 3208337

Kind Code (1)

A1

Patent Publication Date (1)

19820923

Application Number (1)

DE 1982-3208337

Application Date (1)

19820309

Priority Patent Number (1)

JP 1981-35069

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

19810311

Abstract

Composite electrophotog. plates having outstanding charge retention, sensitivity, rest potential, and the like consist of a an elec. conductive support carrying a charge carrier-generating layer and a charge carrier-transporting layer containing a carbazole derivative I (R = aryl; R1 = H, halogen, alkyl, alkoxy, amino, or OH; and R3 = aryl or heterocyclyl). Thus, an aluminized polyester support was coated with Se by vapor deposition to give a 0.5 μm thick charge carrier-generating layer and then coated with a solution containing I (R, R2 = Ph; R1 = H) 6, Panlite L-1250 (polycarbonate) 10, and 1,2-dichloroethane 90 parts to give a charge carrier-transporting layer with a thickness of 11 μm . The resulting plate was corona discharge treated for 5s at - 6.0 kV. The original surface potential, the E1/2 value (exposure to give 1/2 of the original potential), and the rest potential (after a 30 lx-s exposure) were determined to be -835 V, 8.1 lx-s, and 0 V, resp.; after 100 cycles these values were -870 V, 8.4 lx-s, and -5 V, resp.

L11 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Photoconducting composition containing (tricyanovinyl)carbazolyl-substituted polymers

Author/Inventor

Limburg, William W.

Patent Assignee/Corporate Source

Xerox Corp.

Source

Ger. Offen., 31 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2430748	A1	19750123	DE 1974-2430748	19740626

Patent Number (1)

DE 2430748

Kind Code (1)

A1

Patent Publication Date (1)

19750123

Application Number (1)

DE 1974-2430748

Application Date (1)

19740626

Priority Patent Number (1)

US 1973-374157

Priority Kind Code (1)

A

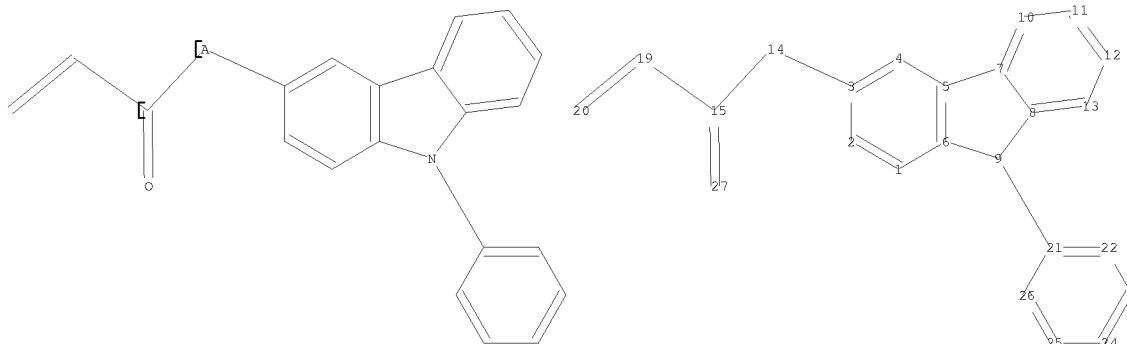
Priority Patent Publication Date (1)

19730627

Abstract

In 5-25 μ layers for electrophotog. sensitive in the 420-620 nm range vinylcarbazole polymers with a mol. weight >15,000 which have been tricyanovinylated to 0.1-50% so that phase separation or crystallization does not occur in the coatings, are used as photoconductors. The polymers are prepared by addition of tetracyanoethylene to their DMF solns. in the absence of O at 60-140°. Thus, N-ethyl-3-vinylcarbazole was prepared from N-ethylcarbazole-3-carboxaldehyde, Ph3MePBr, and BuLi, polymerized at -60° with BF3 in CH2Cl2 to a mol. weight of 330,000, and 28% of the N-ethylcarbazole groups were tricyanovinylated during 4 days at 60° in an N atmospheric. The polymer containing tricyanovinyl groups was coated from a PhMe-cyclohexanone (4:1) solution on Al. The rates of the photoinduced discharge of pos. or neg. surface potentials were comparable to those of com. poly(vinylcarbazole) photoconductors.

=>



chain nodes :

14 15 19 20 27

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 21 22 23 24 25 26

chain bonds :

3-14 9-21 14-15 15-19 15-27 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13 21-22 21-26 22-23 23-24 24-25 25-26

exact/norm bonds :

3-14 5-7 6-9 8-9 9-21 14-15 15-27

exact bonds :

15-19 19-20

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13 21-22 21-26 22-23 23-24 24-25 25-26

G1:C,O

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:CLASS
15:CLASS 19:CLASS 20:CLASS 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:CLASS

L14 STRUCTURE UPLOADED

=> s l14 sss sam

SAMPLE SEARCH INITIATED 10:34:24 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 286 TO ITERATE

100.0% PROCESSED 286 ITERATIONS 15 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 4706 TO 6734
PROJECTED ANSWERS: 68 TO 532

L15 15 SEA SSS SAM L14

=> s l14 sss full
FULL SEARCH INITIATED 10:34:29 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 5639 TO ITERATE

100.0% PROCESSED 5639 ITERATIONS 323 ANSWERS
SEARCH TIME: 00.00.01

L16 323 SEA SSS FUL L14

=> s l16
L17 251 L16

=> s l17 and py<=2002
22908422 PY<=2002
L18 169 L17 AND PY<=2002

=> s l18 and polymer
1165669 POLYMER
931000 POLYMERS
1559731 POLYMER
(POLYMER OR POLYMERS)
L19 15 L18 AND POLYMER

=> d l19 1-15 ibib abs

L19 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
Title

Organic luminescent material and device

Author/Inventor

Taguchi, Toshiki

Patent Assignee/Corporate Source

Fuji Photo Film Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 19 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002105445	A	20020410	JP 2000-300716	20000929

Patent Number (1)

JP 2002105445

Kind Code (1)

A

Patent Publication Date (1)

20020410

Application Number (1)

JP 2000-300716

Application Date (1)

20000929

Priority Patent Number (1)

JP 2000-300716

Priority Kind Code (1)

A

Priority Patent Publication Date (1)

20000929

Abstract

The invention refers to an organic luminescent material I [R1 = H or methyl; R2-3 = H or substituents which may be joined to form a ring; R4 = H, (un)substituted alkyl, alkenyl, alkynyl, aryl, heterocyclyl, alkylcarbonyl, arylcarbonyl, alkylsulfonyl, arylsulfonyl, alkoxy carbonyl, aryloxy carbonyl, carbamoyl or sulfamoyl; Z = moiety comprising an aromatic ring; A = copolymerizable monomer

unit; k = 1 - 100; n = 0 - 9; k + n = 100].

L19 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title The cation radical chain cycloaddition polymerization of N,3-bis(trans-1-propenyl)carbazole: The critical importance of intramolecular hole transfer in cation radical cycloaddition polymerization

Author/Inventor Roh, Yeonsuk; Gao, Daxin; Bauld, Nathan L.

Patent Assignee/Corporate Source Department of Chemistry and Biochemistry, The University of Texas of Austin, Austin, TX, 78712, USA

Source Advanced Synthesis & Catalysis (2001), 343(5), 481-489 CODEN: ASCAF7; ISSN: 1615-4150

Document Type Journal

Language English

Abstract The synthesis and polymerization of N,3-[bis(trans-1-propenyl)]carbazole (1) is reported. Using either the stable cation radical salt tris(4-bromophenyl)aminium hexachloroantimonate (2+-) or anodic oxidation to initiate the reaction, novel cycloaddn. polymers are obtained in which the intermonomer linkages are of the cyclobutane, and to some extent of the Diels-Alder, type. A novel cation radical chain mechanism is proposed for the reaction, and extensive support for this mechanism is presented. The greatly enhanced reactivity of difunctional, as opposed to monofunctional, substrates in cation radical cycloaddns. is dramatically highlighted by a comparison of the cycloaddn. reactivity (rapid polymerization) of 1 vs. N-propenylcarbazole (inefficient cyclodimerization) under electrochem. oxidation conditions. The sharply enhanced reactivity of 1 is attributed to the availability of intramol. hole transfer in the bifunctional but not the monofunctional case.

L19 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title An unprecedented cation radical chain Diels-Alder polymerization leading to novel carbazole polymers

Author/Inventor Bauld, N. L.; Roh, Y.

Patent Assignee/Corporate Source Department of Chemistry and Biochemistry, The University of Texas, Austin, TX, 78712, USA

Source Tetrahedron Letters (2001), 42(8), 1437-1439 CODEN: TELEAY; ISSN: 0040-4039

Document Type Journal

Language English

Abstract The polymerization of 3,6-bis(trans-1'-propenyl)-N-phenylcarbazole in the presence of tris(4-bromophenyl)aminium hexachloroantimonate leads to soluble, high mol. weight, thermally stable cycloaddn. polymers containing carbazole units in the main polymer chain. The reaction appears to proceed via a highly efficient cation radical chain mechanism which circumvents the usual hole transfer step of the propagation cycle. This polymerization represents the first observation of direct cation radical Diels-Alder cycloaddn. polymerization

L19 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title N-Phenylvinylcarbazole compounds as radical polymerization monomers for polymers and their manufacture

Author/Inventor Nakaya, Tadao; Yamauchi, Takao

Patent Assignee/Corporate Source Taiho Kogyo Co., Ltd., Japan

Source Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

Document Type Patent

Language Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000256319	A	20000919	JP 1999-65200	19990311

Patent Number (1)
JP 2000256319

Kind Code (1)
A

Patent Publication Date (1)
20000919

Application Number (1)
JP 1999-65200

Application Date (1)
19990311
Priority Patent Number (1)
JP 1999-65200
Priority Patent Publication Date (1)
19990311

Abstract

Carbazole compds. which bear a vinyl group on the 4 position and a substituted Ph group on the 1 position are prepared by alkylating carbazole (I) with a substituted Ph iodide compound, then formylating the alkylated I with a Vilmeier reagent and converting the formylated compound to a vinyl compound

L19 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Styryl-containing polymer, its manufacture, and organic electroluminescent device, electrophotographic photoreceptor, and hole-transporting material using it

Author/Inventor

Ueda, Hideaki; Kitahora, Takeshi; Nozaki, Takeshi

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan; Konica Minolta Holdings, Inc.

Source

Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310606	A	19981124	JP 1997-119194	19970509

Patent Number (1)
JP 10310606

Kind Code (1)
A

Patent Publication Date (1)
19981124

Application Number (1)
JP 1997-119194

Application Date (1)
19970509

Priority Patent Number (1)
JP 1997-119192

Priority Kind Code (1)
A

Priority Patent Publication Date (1)
19970509

Abstract

The styryl-containing polymer is represented by $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CH}:\text{CHAr}_2)]_n$ (Ar₁ = arylene; Ar₂ = aryl, condensed polycyclic group, heterocyclic group; Ar₁ and Ar₂ may be substituted; n = natural number). The above polymer is manufactured by (1) the reaction between a P compound $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CH}_2\text{X})]_n$ and an aldehyde compound Ar₂CHO or (2) the reaction between an aldehyde compound $[\text{CH}_2\text{CH}(\text{Ar}_1\text{CHO})]_n$ and a P compound Ar₂CH₂X [X = PO(OR)₂ or PR₂Y; R₁ = lower alkyl; R₂ = cycloalkyl, aryl; Y = halo]. The electroluminescent device contains the polymer in ≥ 1 organic compound thin layer including a light-emitting layer and the photoreceptor contains the polymer as a charge-transporting material. The hole-transporting material composed of the polymer is also claimed. The styryl-containing polymer shows good performance in charge-transporting and optical conductivity even after repeated use.

L19 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Carbazole derivative for charge transport material of electrophotographic photoreceptor

Author/Inventor

Kobayashi, Toru; Matsushima, Yoshimasa; Sugiyama, Hiroshi; Hagiwara, Toshimitsu

Patent Assignee/Corporate Source

Takasago Perfumery Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 27 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09295969	A	19971118	JP 1996-130556	19960430

Patent Number (1)
JP 09295969
Kind Code (1)
A
Patent Publication Date (1)
19971118
Application Number (1)
JP 1996-130556
Application Date (1)
19960430
Priority Patent Number (1)
JP 1996-130556
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19960430

Abstract

The charge transport material for the electrophotog. photoreceptor contains I. (Ar1-2 = aryl; R1-2 = lower alkyl, aryl; R3 = lower alkyl, C5-7 aliphatic cyclic alkyl, aryl, aralkyl; m,n = 0-1). The charge transport material shows good solubility in polymer binder and provides good charge transportability.

L19 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Organic photorefractive materials, manufacture thereof and memory devices

Author/Inventor

Yokoyama, Kenji; Arishima, Koichi; Shimada, Toshuki; Sukegawa, Takeshi

Patent Assignee/Corporate Source

Nippon Telegraph & Telephone, Japan

Source

Jpn. Kokai Tokkyo Koho, 27 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>JP 07110499</u>	<u>A</u>	<u>19950425</u>	<u>JP 1993-344598</u>	<u>19931220</u>

Patent Number (1)
JP 07110499
Kind Code (1)
A
Patent Publication Date (1)
19950425
Application Number (1)
JP 1993-344598
Application Date (1)
19931220
Priority Patent Number (1)
JP 1993-344598
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19931220

Abstract

The materials, suitable for use in write-in memories, comprise: a carrier-generating and a nonlinear optical substance; and a transparent polymer dispersant.

L19 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrophotographic photoreceptors

Author/Inventor

Watanabe, Kazumasa; Kinoshita, Akira; Hirose, Hisahiro; Itami, Akihiko

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 24 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03035246	A	19910215	JP 1989-170358	19890630

Patent Number (1)
JP 03035246
Kind Code (1)
A
Patent Publication Date (1)
19910215
Application Number (1)
JP 1989-170358
Application Date (1)
19890630
Priority Patent Number (1)
JP 1989-170358
Priority Patent Publication Date (1)
19890630

Abstract

An electrophotog. photoreceptor suited for use in laser printers comprises a crystalline titanyl phthalocyanine (charge generator) exhibiting CuK α x-ray diffraction main peaks at $2\theta = 9.6$ and $27.2 \pm 2^\circ$ with the former intensity $\geq 40\%$ of the latter and ≥ 1 charge transporter selected from AHC:NNR1R2 (A = aryl, heterocyclic, vinyl; R1,2 = alkyl, Ph, naphthyl; R1, R2 may form a ring), Ar1Ar2NAr3CR11:CR12R13 (Ar1,2 = alkyl, aryl; Ar1, Ar2 may form a ring; Ar3 = phenylene; R11 = H, alkyl, phenyl; R12,13 = alkyl, aryl; R12, R13 may form a ring), Ar11Ar12C(:CHCH:)nCAr13Ar14 [n = 0, 1; Ar11-14 = Ph, naphthyl; ≤ 1 of Ar11-14 contains amino-substituted groups(s)], I (n = 0, 1; Ar21,22 = alkyl, aryl; Ar21, Ar22 may form a ring; R21 = H, alkyl, aryl; R22 = H, alkyl, alkoxy, halo), Ar31Ar32NAr33B (Ar31,32 = phenylene, naphthyl; Ar33 = phenylene; B = benzyl, phenetyl), and a polymer with R1SiR2 repeating unit (R1,2 = alkyl, aryl, alkylsilyl, arylsilyl). The photoreceptor has an extended photosensitive region including long wavelengths of semiconductor lasers.

L19 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrostatographic imaging method

Author/Inventor

Takizawa, Yoshio; Takahashi, Jiro; Matsubara, Akitoshi

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01246559	A	19891002	JP 1988-77465	19880329

Patent Number (1)
JP 01246559
Kind Code (1)
A
Patent Publication Date (1)
19891002
Application Number (1)
JP 1988-77465
Application Date (1)
19880329
Priority Patent Number (1)
JP 1988-77465
Priority Patent Publication Date (1)
19880329

Abstract

The title imaging method employs (1) a toner containing a styrene homopolymer and/or a styrene-vinyl compound copolymer and an oxidation inhibitor, and (2) a photoreceptor based on an organic photoconductive semiconductor.

L19 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Photosensitive materials for electrophotography

Author/Inventor

Kawakami, Sota; Takimoto, Masataka; Sawada, Kiyoshi

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61235847	A	19861021	JP 1985-76294	19850410

Patent Number (1)

JP 61235847

Kind Code (1)

A

Patent Publication Date (1)

19861021

Application Number (1)

JP 1985-76294

Application Date (1)

19850410

Priority Patent Number (1)

JP 1985-76294

Priority Patent Publication Date (1)

19850410

Abstract

Elec. conductive substrates are coated with a lining layer consisting of an alc.-insol. poly(vinyl formal) resin, and then with a photosensitive layer to give the title materials. The materials show good substrate-photosensitive layer adhesion and good performance with respect to sensitivity, dark-decay, charging, and durability on repeated use; hence the materials are useful for electrophotog. Thus, an Al plate was coated successively with (1) a lining layer of Vinylec L [poly(vinyl formal) resin], (2) a charge-generating layer composed of I and Panlite L-1250 (polycarbonate resin), and (3) a charge-transport layer composed of II and Panlite K-1300 (polycarbonate resin) to obtain a photosensitive material, which gave a surface potential of -900 V, a dark-decay rate of 21.8%, and a half-decay exposure sensitivity of 5.5 lx-s by a 40-μA corona charging followed by a 5-s dark period and subsequent visible exposure.

L19 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Photoreceptors

Author/Inventor

Takei, Yoshiaki; Fujimaki, Yoshihide; Nomori, Hiroyuki

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60143349	A	19850729	JP 1983-249503	19831229

Patent Number (1)

JP 60143349

Kind Code (1)

A

Patent Publication Date (1)

19850729

Application Number (1)

JP 1983-249503

Application Date (1)

19831229

Priority Patent Number (1)

JP 1983-249503

Priority Patent Publication Date (1)

19831229

Abstract

Electrophotog. photoreceptors have a photosensitive layer comprising a charge carrier-generating layer and a charge carrier-transporting layer containing a carbazole derivative (I; R = aryl which may be substituted; R1 = H, halo, alkyl which may be substituted, alkoxy, NH2, substituted amino, OH; R2 = aryl which may be substituted, heterocyclyl which may be substituted) and a polymeric organic semiconductor having condensed aromatic or heterocyclic rings on its side chains. The photoreceptors exhibit improved sensitivity and UV-light stability. Thus, an Al-coated poly(ethylene terephthalate) support was 1st coated with maleic anhydride-vinyl acetate-vinyl chloride copolymer (S-Lec MF-10), then coated with 4,10-dibromoanthroanthrolone (Monolite Red 2Y; C.I. 59300) by vapor deposition, finally coated with a solution containing poly(N-vinylcarbazole) (Luviran M-170), I [R, R2 = p-MeOC6H4; R1 = H], and a polycarbonate resin (Panlite L-1250), and dried to give an electrophotog. photoreceptor showing high

sensitivity and UV lightfastness.

L19 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Composite electrophotographic photosensitive materials

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 14 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58002849	A	19830108	JP 1981-104579	19810629

Patent Number (1)

JP 58002849

Kind Code (1)

A

Patent Publication Date (1)

19830108

Application Number (1)

JP 1981-104579

Application Date (1)

19810629

Priority Patent Number (1)

JP 1981-104579

Priority Patent Publication Date (1)

19810629

Abstract

Charge carrier-transfer layers of composite electrophotog. plates contain an amine of the formula RNR_1R_2 (R , R_1 , R_2 = aromatic or heterocyclic moiety), a carbazole derivative of the formula I (R_3 , R_4 = H, halo, alkyl, alkoxy, aryl, aryloxy, amino, OH; R_5 , R_6 = alkyl, aryl; Z = arylene, O- or S-containing heterocyclic moiety), and an organic polymer type photoconductor having condensed aromatic or heterocyclic ring(s) on side chain. Optionally, an electron acceptor type compound is added to the charge carrier-transfer layer and/or charge carrier-generating layer. Thus, an Al-laminated poly(ethylene terephthalate) film support was coated with S-Lec MF-10 (a maleic anhydride-vinyl acetate-vinyl chloride copolymer), then coated with 4,10-dibromoanthanthrone to form a charge carrier-generating layer, and coated with a composition containing poly(N-vinylcarbazole), 4,4'-dimethyltriphenylamine, I (R_3 , R_4 = H; R_5 , R_6 = p-methoxyphenyl; Z = p-phenylene), and Panlite L-1250 (a polycarbonate resin) to give a composite electrophotog. plate having very stable electrophotog. characteristics.

L19 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Electrophotographic recording material

Author/Inventor

Takahashi, Jiro; Komamura, Tawara; Sawada, Kiyoshi; Sasaki, Osamu; Goto, Satoshi; Kinoshita, Akira

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Ger. Offen., 37 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3248374	A1	19830714	DE 1982-3248374	19821228

Patent Number (1)

DE 3248374

Kind Code (1)

A1

Patent Publication Date (1)

19830714

Application Number (1)

DE 1982-3248374

Application Date (1)

19821228

Priority Patent Number (1)

JP 1981-213834

Priority Kind Code (1)

A

Priority Patent Publication Date (1)
19811228

Abstract

An electrophotog. recording material with a greater ability for the production of charge carriers, a higher sensitivity, and a lower rest potential consists of an elec. conductive support, a photosensitive layer containing a bisazo compound of the formula I or II (R = Br, Cl, CN; R1 = halogen, alkyl, alkoxy, CN; R2 = H, halogen, alkyl, alkoxy; R3 = carbamoyl, sulfamoyl; R4 = H, amino, carbamoyl, carboxy, ester group; R5 = aryl; Z = the necessary atoms to form an aromatic or heteroarom. ring), and a further layer. Thus, an Al-laminated polyester film was coated with a vinyl acetate-vinyl chloride-maleic anhydride copolymer 0.05 μm thick interlayer, a 0.5 μm charge forming layer from a dispersion containing III 2 and 1,2-dichloroethane 140 weight parts, and a 12 μm charge transporting layer from a mixture containing N,N-diethylaminobenzaldehyde N,N-diphenylhydrazone 6, a com. polycarbonate 10, and 1,2-dichloroethane 90 weight parts. The resultant plate was charged to a surface potential of ≥ 500 V and the amount of light required to decrease the surface potential to 250 V and 50 V at 15°, 25°, 35° were 2.7, 2.5, and 2.4 and 5.7, 5.9, and 5.3 lx-s, resp. The required exposure to produce a rest potential of 0 at all these temps. was 30 lx-s.

L19 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Light-sensitive electrophotographic element

Author/Inventor

Goto, Satoshi; Kinoshita, Akira; Takei, Yoshiaki; Fujimaki, Yoshihide

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd. , Japan

Source

Ger. Offen., 42 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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19810311

Abstract

Composite electrophotog. plates having outstanding charge retention, sensitivity, rest potential, and the like consist of a an elec. conductive support carrying a charge carrier-generating layer and a charge carrier-transporting layer containing a carbazole derivative I (R = aryl; R1 = H, halogen, alkyl, alkoxy, amino, or OH; and R3 = aryl or heterocyclyl). Thus, an aluminized polyester support was coated with Se by vapor deposition to give a 0.5 μm thick charge carrier-generating layer and then coated with a solution containing I (R, R2 = Ph; R1 = H) 6, Panlite L-1250 (polycarbonate) 10, and 1,2-dichloroethane 90 parts to give a charge carrier-transporting layer with a thickness of 11 μm . The resulting plate was corona discharge treated for 5s at - 6.0 kV. The original surface potential, the E1/2 value (exposure to give 1/2 of the original potential), and the rest potential (after a 30 lx-s exposure) were determined to be -835 V, 8.1 lx-s, and 0 V, resp.; after 100 cycles these values were -870 V, 8.4 lx-s, and -5 V, resp.

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Title

Photoconducting composition containing (tricyanovinyl)carbazolyl-substituted polymers

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DE 2430748	A1	19750123	DE 1974-2430748	19740626

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19730627

Abstract

In 5-25 μ layers for electrophotog. sensitive in the 420-620 nm range vinylcarbazole polymers with a mol. weight >15,000 which have been tricyanovinylated to 0.1-50% so that phase separation or crystallization does not occur in the coatings, are used as photoconductors. The polymers are prepared by addition of tetracyanoethylene to their DMF solns. in the absence of O at 60-140°. Thus, N-ethyl-3-vinylcarbazole was prepared from N-ethylcarbazole-3-carboxaldehyde, Ph3MePBr, and BuLi, polymerized at -60° with BF3 in CH2Cl2 to a mol. weight of 330,000, and 28% of the N-ethylcarbazole groups were tricyanovinylated during 4 days at 60° in an N atmospheric. The polymer containing tricyanovinyl groups was coated from a PhMe-cyclohexanone (4:1) solution on Al. The rates of the photoinduced discharge of pos. or neg. surface potentials were comparable to those of com. poly(vinylcarbazole) photoconductors.

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